Daily Diary Report by Bid Item

Contract No.: **04-0120F4**
Diary #: **078** **Const Calendar Day:** 287 **Date:** **22-Jun-2010** **Tuesday**
Inspector Name: **Bruce, Matt** **Title:** **Transportation Engineer**
Inspection Type: Continuous
Shift Hours: 07:00 am 11:00 pm **Break:** 04:00 **Over Time:** 04:00
Federal ID:
Location:
Reviewer: **Mathur, Lalit** **Approved Date:** 08-Oct-10 **Status:** Approved

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** 50 - 60 **12 PM** 60 - 70 **4PM** 50 - 60
Precipitation 0.00" **Condition** Mostly sunny to partly cloudy
Working Day ☑ If no, explain:

Diary: Dispute ☐

Work description.

- Continued to review pertinent documents related to grouting the E-Line continuity tendons and concrete placement of lift 1 at the W2W construction joint.

04-0120F4 **Bid Item:** **034** **X-W2C-BCT.034** **E-W Line Cross Over W2 Cap Cap Beam Continuity Tendons**
SCHWAGER DAVIS INC.

Labor

Trade	Class	Name	RT Hrs	OT Hrs	DT Hrs	Total	Remarks	Dispute
Contractor:	SCHWAGER DAVIS INC.							
Ironworker	APP	Samnang San	0.00	0.00	0.00	0.00		☐
Ironworker	JNM	Todd Blackwell	0.00	0.00	0.00	0.00		☐
Ironworker	JNM	Randy Hill	0.00	0.00	0.00	0.00		☐
Ironworker	GEN	Ralph Craig	0.00	0.00	0.00	0.00		☐
Ironworker	JNM	Brian Nobile	0.00	0.00	0.00	0.00		☐
Ironworker	JNM	James Bond	0.00	0.00	0.00	0.00		☐

Diary: Dispute ☐

Work description. **034** X-W2C-BCT.034

The following observations were taken during the grouting operation of the E-Line continuity tendons today:

The grouting operation began at 7:20am with an ambient temperature of 61F. Sika grout 300 PT was used today as in previous grouting operations for the W2 and E2 cap beams. The initial temperature of the grout was 77F, the efflux time was measured at 17 seconds, and the specific gravity (S.G) of the grout was 2.07 (129.2pcf) using the mud balance scale. SDI ironworkers were warned that the minimum S.G. for this particular grout based on previous experience should be 2.12 (132pcf). The specific gravity relates to the water/cement ratio and determines the compressive strength of the grout. Tests were conducted again to verify the previous tests and the temperature of the grout was 82F and the efflux time was 24 seconds, and the SG was 2.07 (129.1pcf). Samples for compressive strength were taken for 7, 28, and 56 days. Smith Emery technician Sal took samples as well and assisted/observed the first set of tests on the fluid grout.

Grouting started at continuity tendon E44 with a pumping pressure of no greater than 20psi prior to charging the tendon at 50psi at which time the inlet and outlet valves were closed. At 8:12am there was a leak discovered at the dead end of tendon E37B where the bearing plate and pipe are welded together inside OBG lift 1E. Grouting of this tendon was stopped temporarily to allow ABF laborers time to seal this joint with epoxy. On average it took 5-6 minutes to grout a continuity tendon using 10 bags of grout with 15

gallons of water. At 8:30am SDI ironworkers went back to E37B to recharge the tendon with grout. At 8:54am there was a leak at the dead end of tendon E32B where the bearing plate and pipe are welded together. At 9:10am SDI ironworkers went back to E32B to recharge the tendon with grout.

The grout temperature at 9:22am was up to 86F using the infrared temperature gun. All other temperatures were taken with the thermometer. At 9:45am it was discovered that continuity tendons E27B, E28B, and E29B had "major leaks" at the dead end bearing plate and pipe joint. The bottom row which consist of tendons E15B to E29B were abandoned because it was discovered that ABF laborers didn't seal the voids at the dead end joint. SDI ironworkers proceeded to grout tendons E14B towards 1B. SDI ironworkers also began to blowout the fluid grout placed in tendon E29B using the air compressor from the dead end.

At 10:54am the temperature of the grout was 90F, efflux time was measured at 20 seconds, and the S.G. was 2.08 (129.8pcf). The grout placed in tendons E27B and E29B was flushed out of the ducts at the time of testing. ABF laborers managed to seal the the dead end joint of tendon E28B and the SDI ironworkers recharged this tendon. At 1:03pm the temperature of the grout was 81F, and the ambient temperature was 56F at this time. The grouting operation was completed at 1:34pm. The continuity tendons grouted today along the E-Line were 1A to 16A, 1B to 14B, 28B, 30B to 40B, 42B, E43, and E44 for a total of 45 done today. Overall the grout appeared to look acceptable and was mixed consistently.

The following is the list of equipment that SDI has onsite since it is not currently inputted into PMIV:

Stressing Rams: 6-8-0014, 6-8-134, 6-8-141, and CH600-8-109
Hydraulic Pumps for Monostrand Rams: 3 units with no designated numbers on the equipment
Hydraulic Pumps for Multistrand Rams: 1 unit with no designated numbers on the equipment
Hydraulic Pump for Pushing Strand: HPU-D-110-3K-02
Strand Pusher: No number designated on the equipment
Grout Pump: No number designated on the equipment
Plasma Cutter (Hyperthern Powermax 1000G3 Series): No number designated on the equipment
Water Tank: ABF without any number designated on the equipment

- Refer to other Caltrans inspectors diaries for ABF operations and equipment at the W2 cap beam.

04-0120F4 **Bid Item:** **038** **W-W2C-CON.038** **W Line W2 Cap Place & Cure Concrete**

CONCO PUMPING

Diary:

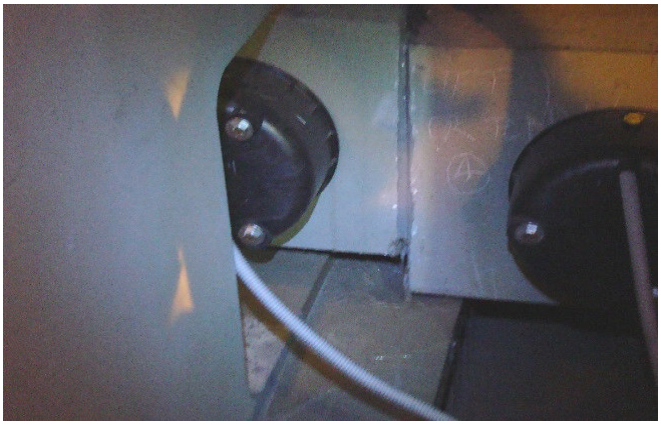
Dispute ☐

Work description. **038** W-W2C-CON.038

- Placed approximately 10cm of SCC mix design number 1507457 for Lift 1 of the W2W construction joint. The sequence of events and the details of the concrete operation were conducted at the direction of Ric Maggenti who was present during the concrete placement. A truck with 2cm of slurry was used as a "primer" prior to placing SCC in the forms. This was done to establish a liquid head in the concrete pump prior to the placement of the highly sensitive SCC with the accelerator Daracet 400 added to the mix. The slurry was discharged in a washout bin positioned on the top of the W2 cap beam to save time on pump mobilization at the forms. The second truck of SCC arrived on the jobsite at 9:30pm and 6 gallons of the Daracet 400 accelerator was added by Bob Foley of Cemex to the SCC and then mixed until 9:43pm. In order to expedite the placement of SCC the slurry primer was unloaded in the washout bin before SCC came out the end of the hose at 9:39pm. Also the concrete from the second truck was placed in the hopper prior to the concrete of the first truck. This was done so that the concrete from the second truck would not prematurely set in the pump or forms. Concrete placement commenced shortly there after and was completed at 10:06pm. Samples for compressive strength at 2, 7, 28, and 56 days were taken from the second truck. The slump flow of the concrete from the second truck was measured at 30.75" and was done while the SCC from the second truck was being placed. It should be noted that this slump flow measurement is out of tolerance with the approved mix design and previous SCC mix designs similar to this one. The concrete temperature was 67F and the ambient temperature was 51F.See Masoud and Lalit's

diaries for more details on the concrete placement, labor, and equipment.

Attachment



Leaking grout observed at the dead end bearing plate to pipe joint for E27B.

Discharging the grout for E29B since there was a leak at the dead end.

Slump flow taken from the second truck, VSI rating was a 2 for this SCC patty.

SDI ironworkers pumping grout into the E-Line continuity tendons from the live end (westside of W2 cap beam)

Grouting pump and pallets were positioned on top of the W2 cap beam